IN THE CLAIMS:

1. (Previously Presented) A container for storing or transporting spent nuclear fuel, the container comprising:

a plurality of tubes that receive spent nuclear fuel assemblies, each tube having four sidewalls and four corners defining a rectangular cross section;

an attachment means for attaching respective pairs of a plurality of corners of the tubes to each other, at least one corner of a first one of the tubes engaging another corner of a second one of the tubes, the attachment means comprising a plurality of recesses in respective ones of the corners and a plurality of rods that are positioned in the recesses between respective engaged ones of the corners, wherein each of the rods is a cylinder having a single cylindrical wall, the cylindrical wall of each of the rods contacting at least two recesses associated with at least two of the tubes;

each engaged corner of the first and second ones of the tubes being formed from an intersection of a first sidewall and a second sidewall, the first and second side walls being normal to each other;

the first sidewall of the first one of the tubes and the first sidewall of the second one of the tubes being in substantial alignment; and

the second sidewall of the first one of the tubes and the second sidewall of the second one of the tubes being in substantial alignment.

2. (Canceled)

3. (Currently Amended) The container of claim 1,~~2,~~ wherein each of the first rods has an opening and the attachment means further comprises at least one pin, wherein the openings of at least one respective pair of the first rods mounted in respective ones of the recesses of the first and second ones of the tubes are axially aligned, wherein the at least one pin is inserted through the openings of the at least one respective pair of the first rods.

4. (Currently Amended) The container of claim 1,~~2,~~ wherein the rods further comprise at least one first rod and at least one second rod, the at least one first rod being mounted in a corresponding at least one of the recesses of the first one of the tubes and the at least one second rod being mounted in a corresponding at least one of the recesses of the second one of the tubes, the at least one first rod engaging a respective one of the recesses of the second one of the tubes and the at least one second rod engaging a respective one of the recesses of the first one of the tubes when the first side wall of the first one of the tubes and the first side wall of the second one of the tubes are in substantial alignment, and the second side wall of the first one of the tubes and the second side wall of the second one of the tubes are in substantial alignment.

5. (Previously Presented) The container of claim 4, further comprising a first and a second set of the tubes, wherein the second rods are mounted on the tubes within the first set, wherein each of the second rods of the first set of tubes engages a respective one of the tubes in the second set of tubes.

6. (Previously Presented) The container of claim 1, wherein the plurality of tubes is arranged in the alternating pattern such that the placement of a four-tube array linked at the corners of the tubes creates a developed cell.

7. (Previously Presented) The container of claim 1, wherein the plurality of tubes includes a plurality of flat load bearing surfaces at the corners of respective ones of the tubes, the flat load bearing surfaces on the first one of the tubes engaging the plurality of flat bearing surfaces on the second one of the tubes.

8. (Previously Presented) A container for storing or transporting spent nuclear fuel, the container comprising:

a plurality of tubes that receive spent nuclear fuel;

a plurality of first rods being mounted at a point where each respective one of the tubes abuts against another one of the tubes, each of said first rods having an opening, wherein each respective one of the first rods is mounted in a recess of both a first one of the tubes and a second one of the tubes, wherein each of the rods is a cylinder having a single cylindrical wall, the cylindrical wall of each of the rods contacting the recesses of both the first and second ones of the tubes;

at least one pin;

wherein the openings of respective ones of the first rods mounted on the first one of the tubes are substantially aligned with the openings of respective ones of the first rods mounted on the second one of the tubes;

the at least one pin extends through the aligned ones of the openings of the first rods, thereby linking respective ones of the tubes together; and

wherein each one of the respective ones of the first rods mate with a corresponding recess in the second one of the tubes when the openings of the respective ones of the first rods mounted in the recesses in the first one of the tubes are substantially aligned with the openings of the respective ones of the first rods mounted on the second one of the tubes.

9. (Previously Presented) The container of claim 8, wherein the at least one pin is captured by one of the first rods.

10. (Previously Presented) The container of claim 8, wherein the at least one pin comprises a head portion and a body portion, the body portion extending through the openings of the aligned ones of the first rods and the head portion resting against one of the first rods.

11. (Canceled)

12. (Canceled)

13. (Currently Amended) The container of claim 8,~~12,~~ further comprising a first set of tubes upon which the second rods are mounted, and a second set of tubes without second rods mounted thereon, the second rods of the first set of tubes engaging the second set of tubes when the tubes are linked together.

14. (Previously Presented) The container of claim 8, wherein each of the tubes has four sidewalls and four corners defining a rectangular cross section, the plurality of recesses being formed at the corners of the tubes.

15. (Previously Presented) The container of claim 14, wherein:

the tubes are arranged in an alternating pattern; and

the tubes are linked together at the corners, wherein a sidewall of a first one of the tubes is in substantial alignment with a sidewall of a second one of the tubes.

16. (Previously Presented) The container of claim 15, wherein the tubes are arranged in the alternating pattern such that the placement of a four-tube array linked at the corners of the tubes creates a developed cell.

17. (Previously Presented) The container of claim 15, wherein respective ones of the tubes includes a plurality of flat load bearing surfaces, the flat load bearing surfaces being located at the corners of the tubes, the flat load bearing surfaces on a respective one of the tubes engaging the flat load bearing surfaces on another one of the tubes.

18. (Previously Presented) A container for storing spent nuclear fuel, the container comprising:

a plurality of tubes that receive spent nuclear fuel assemblies, each of the tubes having a plurality of recesses;

a plurality of first rods being mounted in respective ones of the recesses; and

wherein at least one first rod mounted on a respective one of the tubes is attached to at least one of the first rods mounted on at least one second one of the tubes, thereby linking the respective one of the tubes and the at least one second one of the tubes together, wherein each of the first rods is seated in both a first one of the recesses of the respective one of the tubes and a second one of the recesses of the at least one second one of the tubes, and each of the rods is a cylinder having a single cylindrical wall, the cylindrical wall of each of the rods contacting both the first and second ones of the recesses.

19. (Previously Presented) The container of claim 18, wherein each of the first rods has an opening and respective pairs of the first rods are attached to each other by axially aligning the openings of the respective pairs of the first rods and extending a pin through the openings of each of the respective pairs of the first rods.

20. (Previously Presented) The container of claim 19, wherein the pin comprises a head portion and a body portion, the body portion extending through the openings of each of the respective pairs of the first rods and the head portion abutting against one of the first rods.

21. (Previously Presented) The container of claim 19, wherein the pin is captured by one of the first rods.

22. (Previously Presented) The container of claim 18, wherein each of the tubes has four sidewalls and four corners defining a rectangular cross section, the recesses being formed along at least one of the corners of the tubes and the first rods being mounted in the plurality of recesses along the at least one of the corners of the tubes.

23. (Previously Presented) The container of claim 22, wherein the tubes are arranged in an alternating pattern and the tubes are linked together at the corners, wherein a first one of the side walls of the first one of the tubes is substantially aligned with a first one of the side walls of the second one of the tubes, and a second one of the side walls of the first one of the tubes is substantially aligned with a second one of the side walls of the second one of the tubes.

24. (Previously Presented) The container of claim 18, further comprising at least one second rod being mounted in the recesses of respective ones of the tubes, the at least one second rod mounted in the recess of a respective one of the tubes engaging the recess of a remaining one of tubes when the tubes are linked together.

25. (Previously Presented) The container of claim 24, wherein the plurality of tubes comprises a first set of tubes and a second set of tubes, wherein the second rods are mounted in each one of the tubes in the second set of tubes.

26. (Previously Presented) The container of claim 23, wherein the plurality of tubes is arranged in the alternating pattern such that the placement of a four-tube array linked at the corners of the tubes creates a developed cell.

27. (Previously Presented) The container of claim 22, wherein respective ones of the tubes includes a plurality of flat load bearing surfaces at the corners of the tubes, the plurality of flat load bearing surfaces on a respective one of the tubes engaging the flat bearing surfaces on a remaining one of the tubes.

28. (Previously Presented) A container for storing or transporting spent nuclear fuel, the container comprising:

a plurality of tubes that receive spent nuclear fuel rods, each of the tubes having four sidewalls and four corners defining a rectangular cross section, each of the tubes having a plurality of recesses along at least one of the corners and a plurality of flat load bearing surfaces along at least one of the corners;

a plurality of first rods being mounted in the recesses of the tubes, wherein respective pairs of the first rods are attached to each other, thereby linking the tubes together, and each of the first rods is seated in the recesses of two of the tubes, wherein each of the rods is a cylinder having a single cylindrical wall, the cylindrical wall of each of the rods contacting the recesses of two of the tubes; and

wherein the tubes are linked to each other at the corners such that the flat load bearing surfaces on respective pairs of the tubes abut against each other.

29. (Previously Presented) The container of claim 28, wherein each of the first rods includes an opening, wherein the openings of respective pairs of the first rods of adjacent ones of the tubes are aligned so that a pin may be extended therethrough, thereby attaching the respective pairs of the first rods together.

30. (Previously Presented) The container of claim 29, wherein the one or more pins comprise a head portion and a body portion, the body portion extending through the openings of the aligned first rods of adjacent tubes and the head portion being adjacent to one first rod of the plurality of first rods.

31. (Previously Presented) The container of claim 28, further comprising at least one second rod being mounted in the recesses of a respective one of the tubes and engaging the recesses of an adjacent one of the tubes when the tubes are linked together.

32. (Previously Presented) The container of claim 31, further comprising a first set of the tubes and a second set of the tubes, wherein the second rods are mounted in each one of the first set of tubes.

33. (Previously Presented) The container of claim 28, wherein the plurality of tubes is arranged in the alternating pattern such that the placement of a four-tube array linked at the corners of the tubes creates a developed cell.

34. (Previously Presented) The container of claim 29, wherein the pin is captured by one of the first rods.

35-47. (Canceled)

48. (Previously Presented) An apparatus for the storage and transport of spent nuclear fuel, comprising:

an array of tubes;

a container, wherein the array of tubes are disposed in the container and the array of tubes contacts at least one side wall of the container;

a plurality of couplings between adjacent pairs of the tubes, wherein each of the couplings comprises:

a first rod disposed on a first one of the tubes;

a second rod attached to a second one of the tubes;

the first rod being disposed in recesses formed in the outer surfaces of both the first and second ones of the tubes, and the second rod being disposed in the recesses formed in the outer surfaces of both the first and second ones of the tubes, wherein each of the first and second rods is a cylinder having a single cylindrical wall, the cylindrical wall of each of the first and second rods contacting the recesses formed in the outer surfaces of both the first and second ones of the tubes;

the first and second rods each having an opening along a length of the first and second rods; and

a pin extending through the openings of the first and second rods; and

wherein a horizontal bearing load applied to the array of tubes is transferred through the tubes and the couplings to the at least one side wall of the container.

49. (Previously Presented) The apparatus of claim 48, wherein each of the tubes further comprises a plurality of side walls, wherein at least one of the side walls of a respective one of the tubes and a side wall of a second one of the tubes are in substantial alignment.

50. (Previously Presented) The apparatus of claim 48, wherein each of the tubes in the adjacent pairs of tubes further comprise at least two side walls joined along a corner, and, a flat bearing surface disposed in at least a portion of the corner, wherein for each of the adjacent pairs of tubes, a first one of the flat bearing surfaces contacts a second one of the flat bearing surfaces.

51. (Previously Presented) The apparatus of claim 48, further comprising at least one solid rod disposed between the adjacent pairs of the tubes.

52. (Canceled)

53. (Currently Amended) The apparatus of claim 48,~~52,~~ wherein the first and second rods are welded into the recesses.

54. (Previously Presented) The apparatus of claim 48, wherein the recesses are formed in a plurality of corners in the outer surfaces of the tubes.

55. (Previously Presented) The apparatus of claim 48, wherein the pin extending through the openings of the first and second rods is rigidly attached to at least one of the first and second rods.

56. (Previously Presented) The apparatus of claim 55, wherein the pin is rigidly attached to at least one of the first and second rods by a weld, wherein the weld is positioned so as not to be subject to the horizontal bearing load.

57. (Previously Presented) The apparatus of claim 48, wherein a cross sectional shape of the tubes is selected from the group consisting of a square, a rectangle, a circle, a triangle, a hexagon, a heptagon, and an octagon.

58. (Previously Presented) The apparatus of claim 48, wherein the array of tubes forms a cell, wherein the tubes are arranged in an alternating pattern in the cell.

59. (New) An apparatus, comprising:

a dry storage and transport system for the storage and transport of spent nuclear fuel having a plurality of tubes in a container;

a plurality of rods, each rod being disposed within, and attached to, a recess formed in an outer surface of a corresponding first one of the tubes;

each of the rods has a cylindrical wall that contacts the recess formed in the outer surface of a respective second one of the tubes when the tubes are assembled in the container;

a plurality of pins, where respective ones of the rods further comprises a socket to receive one of the pins; and

each of the pins being disposed into a pair of the sockets to connect a respective pair of the tubes.

60. (New) The apparatus of claim 59, wherein each of the tubes further comprises a plurality of side walls, wherein a side wall of a first one of the tubes and a side wall of a second one of the tubes are in substantial alignment.

61. (New) The apparatus of claim 59, wherein each of the recesses is formed in a corner of a respective one of the tubes.

62. (New) The apparatus of claim 59, where respective ones of the rods are solid.

63. (New) The apparatus of claim 59, wherein each rod is welded to the corresponding first one of the tubes.

64. (New) The apparatus of claim 59, wherein a cross sectional shape of each of the tubes is selected from the group consisting of a square, a rectangle, a circle, a triangle, a hexagon, a heptagon, and an octagon.

65. (New) The apparatus of claim 59, wherein a horizontal bearing load applied to the tubes is transferred through the tubes and the rods to a side wall of the container.

66. (New) A method, comprising the steps of:

dry storing and transporting spent nuclear fuel in a plurality of tubes in a container;

disposing each one of a plurality of rods in a recess formed in an outer surface of a respective first one of the tubes, each of the plurality of rods being attached to the respective first one of the tubes;

assembling the tubes together by disposing each of the rods attached to a respective first one of the tubes into a recess formed in an outer surface of a second one of the tubes, each of the rods having a cylindrical wall that contacts the respective recesses in the first and second ones of the tubes, where respective ones of the rods each further comprise a socket to receive a pin; and

positioning a pin into a pair of the sockets to connect a respective pair of the tubes.

67. (New) The method of claim 66, further comprising the step of substantially aligning a side wall of the first one of the tubes and a side wall of the second one of the tubes.

68. (New) The method of claim 66, further comprising the step of transferring a horizontal bearing load applied to the tubes through the tubes and the rods to a side wall of the container.